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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/677,092

09/30/2003

Brian Labrec

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EXAMINER

MCCLENDON, SANZA L

ART UNIT

PAPER NUMBER

1711

MAIL DATE

DELIVERY MODE

06/20/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/677,092

Applicant(s)

LABREC, BRIAN

Examiner

Sanza L. McClendon

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-15 and 17-24 is/are rejected.
- 7) ☐ Claim(s) 5-7 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6/8/2007.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

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## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on June 8, 2007 has been entered.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on June 8, 2007 was filed after the mailing date of the Notice of Allowance on March 8, 2007. The submission is in compliance with the provisions of 37 CFR 1.97. The examiner has deemed while the cited documents teaches laser engraving compositions and/or methods of laser engraving, they do not expressly teach the instantly claimed compositions, methods and articles. The cited references teach adding at least one laser enhancing additive however they lack and/or do not require a second quantity of another laser enhancing additive nor do they require the host material (binder) be modified to increase the thermal conductivity.

3. However while reconsidering previous cited references and another search of the prior art, the examiner deems that a rejection over cited documents to Plachetta et al (5,374,675), Bable et al (5,075,195), Shinmoto et al (5,897,938), and Stevenson et al (5,840,142) (IDS dated 2/8/07) is warranted. Therefore, the indicated allowability of claims 1-24 is withdrawn in view of the newly above-listed documents. Rejections based on the newly cited reference(s) follow.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1-4, 8-15, 17-18 and 23-24 rejected under 35 U.S.C. 103(a) as being unpatentable over Plachetta et al (5,372,675) in view of Babler et al (5,075,195) and Stevenson et al (5,840,142).

Plachetta et al teaches thermoplastic molding materials for production of laser-inscribable (engravable) moldings. Said thermoplastic moldings are obtained from a composition comprising A) from 30 to 99.995% by weight of a thermoplastic polymer, B) from 0.005 to 5% by weight of an inorganic subgroup metal salt and C) from 0 to 69.9995% by weight of a fibrous or particulate filler or mixtures thereof. In addition, additive can be added, wherein these can be found in column 3. Said additives include antioxidants and heat stabilizers, which are, for example, sodium halides, potassium halides and/or lithium halides that can be used in conjunction with copper (I) halides, wherein iodide is a halide. Thus the composition can comprise a first quantity (up to 1% by weight) of Sodium Iodide or Potassium Iodide in conjunction with Copper (I) iodide—see column 3. Other additives include pigments and/or dyes such as cadmium sulfate and others. Said composition can further comprise fillers such as glass fibers, powdered quartz and others up to 50% by weight—see column 4. Nucleating agents such as those found in column 4 can be added, as well as, plasticizers and toughening polymers. Said toughening polymers include polyurethane rubbers—see column 7, lines 60. Additionally, the compositions can further comprise flameproofing agents up to 30% by weight.

Said thermoplastic polymers can be found in columns 1-3, wherein polyester, polyolefins, styrene polymers or mixtures can be found. Said polyolefins are produced by Ziegler-Natta catalyst and can comprise fillers—see column 2, lines 42-43 and 68. The polystyrene polymers can be co-polymers comprising styrene as a rigid portion with olefins as flexible portions or high-impact type polystyrene polymers. The inorganic salts can be found in column 3. These are deemed to read on claims 5, 8, and 11. The addition of glass fibers appears to read in claims 9-12. When the filler polypropylene is used as the thermoplastic polymer claims 13-14. It is known that Ziegler-Natta catalyst produce polyolefins having chain-structural parameters that are varied, i.e., isotactic, syndotatic and/or atatic. Therefore the examiner deems that claim 17 is envisioned within the reference, i.e., highly crystalline PP. Additionally the addition of nucleating agents should change the orientation and/or density of the thermoplastic polymer therefore claim 15 is read in the reference.

Plachetta et al does not expressly teach adding a zinc sulfide, barium sulfide, an alkyl sulfonate or a thioester as a 2<sup>nd</sup> laser-enhancing additive. However, Plachetta et al teaches adding organic pigments as enhancing aides, such as cadmium sulfide, as an additive in the composition.

Babler et al teaches that cadmium sulfide and zinc sulfide are well-known pigments, see column 3, lines 38-40 and 47. Therefore it is deemed that zinc sulfide and cadmium sulfide are equivalent pigments. Thus, one of ordinary skill in the art at the time of the invention would have found it obvious to replace the cadmium sulfide with zinc sulfide since the prior art recognizes them as equivalent pigments at the time the invention was made.

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Stevenson et al teaches it is well known in the art that cadmium sulfide and barium sulfide are known pigments, see column 3, lines 7-8. Thus it is deemed that cadmium sulfide and barium sulfide are equivalent pigments. Thus, one of ordinary skill in the art at the time of the invention would have found it obvious to replace the cadmium sulfide with barium sulfide since the prior art recognizes them as equivalent pigments at the time the invention was made.

Regarding claims 23-24, it appears the examples of Plachetta et al read on these claims.

6. Claims 1-4, 8-15, and 17-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plachetta et al (5,372,675) in view of Babler et al (5,075,195) and Stevenson et al (5,840,142) as applied to claims 1-4, 8-15, 17-18 and 23-24 above, and further in view of Shinmoto et al (5,897,938).

Plachetta et al fails to teach an article of manufacture as found in claims 20-22, however articles of this kind are known.

Shinmoto et al teaches articles of manufacture capable of being laser engraved with grayscale indicia. Said article can be a coating on a base layer or a laminate, wherein said laminate can be an identification document—see column 2, lines 46-47. Said laminate comprises a first layer on a base layer, wherein the 1<sup>st</sup> layer comprises a host material and a laser enhancing additive—see column 5, lines 42-46 and column 6 lines 64-67) and a second layer. That 2<sup>nd</sup> layer can be operably coupled to the 1<sup>st</sup> layer.

Therefore, it is deemed that the article of manufacture is well known (see Shinmoto et al). Thus the examiner deems that it would have been obvious to a skilled artisan at the time of the invention to use the laser engraving composition as described by the combination of reference in a method of making an identification document as found in Shinmoto et al in the absence of evidence to the contrary and/or unexpected results. The motivation would have been a reasonable expectation of laser engraved article have good mechanical properties and good processing results as disclosed by Plachetta et al—see column 1, lines 38-40.

#### ***Allowable Subject Matter***

7. Claims 5-7 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: the cited art fails to teach the limitation of claims 5-7 and 16 in a composition as defined in instant claim 1.

#### ***Claim Rejections - 35 USC § 112***

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

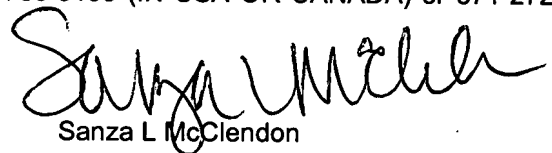
Regarding claim 18, it is unclear the meaning of claim as written. It is not clear if applicant is intending for the composition to be formed into a coating (cured or uncured) or be formed into a laminate or is applicant intending for a coating and a laminate to be further components in the composition as found in claim 1. If so it is unclear how a coating or a laminate can be a component in a composition unless applicant is intending these components to be film-forming components or shell-core type particles or polymers. Clarification is requested.

#### **Conclusion**

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanza L. McClendon whose telephone number is (571) 272-1074. The examiner can normally be reached on Monday through Friday 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Sanza L. McClendon

Examiner

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SMc